

Work Experience

Quicken Loans – Software Engineer

12/2018 – Present

First to draw out the full architecture diagram of the Rocket Pro services, which exposed numerous issues and led to a streamlining of our systems.

Integrated legacy systems into Rocket Pro and vice versa.

Served as Tech Lead for early projects that laid the foundation for easy future additions.

Ideated, specced, wrote, tested, deployed, and integrated reusable libraries into downstream systems.

Mentored senior engineers in their use and modification.

Prototyped, refined, and finalized the CI/CD pipeline and server integrations for Rocket Professional.

Provided extensive code review feedback and mentoring during the entire development process.

Maintained extensive documentation, including but not limited to IDE setup processes for legacy systems, deployments, and major code updates.

Maintained an exceptionally high standard of communicating complex engineering information and processing it into easy-to-understand and non-intimidating bites for non-technical team members.

Maintaining the Rocket Professional production environment by resolving on-call engineering issues.

Clear Launch – Solution Architect

8/2017 – 6/2018

Developing mobile, web, and eCommerce applications for clients including:

Tiff's Treats, Build-A-Sign, Precision Autonomy, WellAware, Broomly

Translating customer/project requirements into discrete programming tasks

Supporting new projects by developing prototypes, mockups, and wireframes

Tech & languages included: C#, Unity, Azure, ASP.NET, MSSQL, Angular, MongoDB, Node.js

Redbird Flight Simulations – Senior Software Engineer

1/2016 – 7/2017

Full Stack Development for Flight Simulator and Aircraft products

Product Installer Development using Advanced Installer

Continuous Integration Setup and Administration using Jenkins, GitLab, and AWS

Architected Projects at Redbird Flight Simulations:

Satloc/AgNav Crop Duster Light Bars (C#, C++/C, .NET, GDI+) – Crop duster lightbar app.

Qualification Test Guide (Elixir, Phoenix, C#, .NET, PostgreSQL, SimConnect) – EASA App.

Guided Independent Flight Training Service (C#, .NET, SimConnect) – Mission grading service.

Navigator (Elixir, Phoenix, C#, .NET, PostgreSQL, Sqlite, SimConnect) – Flight Sim Interface.

Sidekick (Java, Python, BLE, Phidgets) – Flight recorder.

Fair Trade Technologies – Chief Engineer

7/2015 – Present

Providing all in-house software development and consultation services

EWI Worldwide – Technology Developer

6/2013 – 6/2015

Managing Development department after departure of previous Technical Director

Notable Projects at EWI:

AT&T - Connected Car (Unity Game, C#, .NET, WPF, Javascript, Azure)

AT&T - Vehicle Lookup Tool (C#, .NET, Objective C, Xamarin, iOS, Android, Azure)

Pavilion Park - Kids Table (C#, .NET, WPF, Azure)

Kia - Driving Game (C#, .NET, WPF, JavaScript, Azure)

Work Experience Cont'd.

Internal Drive Tech Camps – Multiple Positions

7/2012 – 3/2013

Acted as **Curriculum Developer** for the company's Game Academy division

Wrote interactive teaching materials for Unity, UDK, XNA, and Maya classes

Recorded in-depth video and audio tutorials on Unity and UDK workflow

Acted as **Lead Instructor** for a team of 6 game development instructors at the Harvard Game Academy

Taught game development classes on UDK level creation workflow and development ideation

Held feedback sessions and showed how to think critically about game development

Blackstone Academy Charter School – Contract Teacher

3/2012 – 6/2012

Ran an after school Game Development program for high school students

Taught Chemistry, Physics, Biology, and Geology to students using improvised classroom games

38 Studios: Kingdoms of Amalur – Game Designer

9/2010 – 2/2012

Worked with engineering to add and revise features to critical game systems

Product Owner for the BigWorld Server Scripting System and the UDK Client-Side Events System

Worked one-on-one with content designers to teach how to use new game systems as they rolled out

Prototyped experimental game systems and scripted content for the game's Vertical Slice

BioWare: Star Wars: The Old Republic – Game Designer

7/2009 - 7/2010

Scripted multiplayer content for a story-driven, Star Wars-based, Massively Multiplayer Online Game

Worked with engineering to prototype and revise features to the Companion Character System

Held workshops with internal and external design teams to teach advanced game systems

Presentations & Speeches

Massachusetts Institute of Technology

Causing Fear and Anxiety through Sound Design – MIT Museum

5/2011

Making Games with Quickness and Awesomeness – MIT Game Lab

4/2012

Education

Master of Interactive Technology – Southern Methodist University

5/2009

First SMU Guildhall graduate to publish research thesis

Created methodology to study emotional responses created by games

Publication: Toprac, P. and Abdel-Meguid, A., Causing Fear and Anxiety through Sound Design in Video Games.

In M. Grimshaw (Ed.), Game Sound Technology and Player Interaction: Concepts and Developments

Bachelor of Science in Business Management - Illinois State University

12/2007

Skills

Languages & Frameworks: C#, C++/C, .NET, AWS Infrastructure, Unity, Node.js, MongoDB, GDI+, Unreal Development Kit, Unreal Engine, Elixir, Erlang, Phoenix, COM, MVVM, MVC, PostgreSQL, MSSql, Sqlite, JavaScript, Java, Python, HTML/CSS, Xamarin, WPF, Lua, SourceSDK, HeroEngine, Radiant, Djinn

Other: Amazon Web Services, Microsoft Azure, Windows Installers, Flight Simulator Systems